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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,149	08/19/2003	D. Brien Sirola	US 1354/03	3604

7590 11/10/2004  
Law Office - Dinesh Agarwal, P.C.  
Suite 330  
5350 Shawnee Road  
Alexandria, VA 22312

EXAMINER

POE, MICHAEL I

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/643,149

Applicant(s)

SIROLA ET AL.

Examiner

Michael I Poe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040129</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of Group II, claim 14, in the reply filed on September 9, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 1-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 9, 2004.

### *Drawings*

3. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: a positive step of providing a protective sheath. Claim 14 includes the steps of "(ii) aligning a ground anode in a mold for receiving a protective sheath of carbonaceous cement"; "(iii) encasing the anode in the mold with a dry granular carbonaceous cement and tamping the dry mixture about the anode until fully settled and shaped"; and "(iv) slowly adding sufficient water to fully saturate the sheath of carbonaceous cement". It is unclear to one reading the claim whether or not encasing step (iii) is intended to be a positive step of providing the protective sheath as set forth in aligning step (ii) and adding step (iv) because the encasing step (iii) does not include any mention of a protective sheath. As

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such, it is questionable whether or not the claim provides a positive step of providing a protective sheath. For the purpose of this Office action, the examiner has assumed that the encasing step (iii) provides the protective sheath (e.g., tamping the dry mixture about the anode until fully settled and shaped to provide a protective sheath of carbonaceous cement about the anode).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,055,166 (Schutt) in view of U.S. Patent No. 4,400,259 (Schutt #2) and U.S. Patent No. 3,917,781 (Gabriel et al.).

**Claim 14**

Schutt teaches a method for making a preformed cathodic protection anode (a method for preparing an anode) including providing a mold 202 (providing a mold); pouring a thin layer of unset, electrically conductive, polymer concrete into and along the bottom surface 204 of a recess of the mold 202 (encasing the anode in the mold with a carbonaceous cement); disposing an elongated wire anode 38 over the unset concrete and along virtually the entire length of the recess; securing an electrical conductor 210 to one end of the anode 38 (aligning an anode in the mold for receiving a protective sheath of carbonaceous cement); applying an elongated strip of fiberglass mesh 40 over the anode wire 28 and in engagement with the top surface of the conductive concrete strip disposed thereunder; pouring further unset, electrically conductive, polymer concrete into the mold 202 until it fills the entire mold recess (encasing the anode in the mold with a carbonaceous cement); allowing the conductive concrete to set in the mold 202 to form a preformed anode assembly 200 (curing the carbonaceous cement to hardness); and removing the preformed anode assembly 200 from the mold 202 (column 5, lines 4-29).

Although Schutt further teaches that the preformed anode is used as part of an impressed current cathode protection system for concrete piles for piers and other vertical structures (column 4, lines 48-58), Schutt does not specifically teach that the preformed anode can be used as a deep well anode of an impressed current cathode protection system. However, in this regard, Schutt #2 teaches impressed current cathode protection systems including sacrificial anodes can be used for protecting buried metal structures where the sacrificial anode comprises a deep bed anode assembly (e.g., a deep well anode) (column 2, line 59 - column 3, line 9). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made and one of ordinary skill would have been motivated to use the preformed, sacrificial anode of Schutt as a deep well anode of an impressed current cathode protection system for a buried metal structure as taught by Schutt #2 to provide an easily replaceable, inexpensive, deep well anode for use in impressed current cathode protection systems for buried metal structures.

Schutt does not specifically teach that polymer concrete is poured into the mold as a dry granular cement mixture; that the dry mixture is tamped about the anode until fully settled and shaped; and that sufficient water to fully saturate the dry mixture is slowly added to the dry mixture in the mold. However, Gabriel et al. teach a method preparing and molding concrete including dry mixing aggregates with cement (a dry granular cement); filling the resultant dry mixture into a mold; compacting the dry mixture in the mold by tamping and/or vibration (tamping the dry mixture until fully settled and shaped); injecting water into the dry mixture with the mold after compaction by tamping and/or vibration such that the water sweeps the air from any voids remaining in the dry mixture after compaction (slowly adding sufficient water to fully saturate the sheath of cement); and curing the resultant wet, compact mixture in the mold (column 2, lines 21-44; column 6, line 40 - column 7, line 34). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made and one of ordinary skill would have been motivated to use a dry cast process including compaction by tamping and/or vibration for the electrically conductive, polymer concrete in the process of Schutt as taught by Gabriel et al. to provide a preformed anode having improved characteristics such as strength-to-weight ratio, compressive strength, improved tensile strength, improved surface hardness, etc. (see specifically column 2, lines 11-20 of Gabriel et al.).

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**Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 3,927,163; U.S. Patent No. 4,017,569; U.S. Patent No. 5,294,396; U.S. Patent No. 5,370,783; U.S. Patent No. 5,413,689; U.S. Patent No. 5,507,933; U.S. Patent No. 5,609,748; U.S. Patent No. 6,022,469; U.S. Patent No. 6,193,857 B1; and U.S. Patent No. 6,303,017 B1 have been cited of interest to show the state of the art at the time the invention was made.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael I Poe whose telephone number is (571) 272-1207. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Poe/mip